

DH-IPC-HDBW5441F-AS-E2

2 × 4 MP Dual-Directional No-Splicing WizMind Network Camera




Launched by Dahua Technology, Dahua WizMind is a full portfolio of solutions composed of project-oriented products including IPC, NVR, PTZ, XVR, Thermal and software platform which adopts industry-leading deep learning algorithms. Focusing on customer's requirements, WizMind provides precise, reliable and comprehensive AI solutions for verticals.

Series Overview

With starlight solution and deep learning algorithm, Dahua WizMind 5 Series network camera has various intelligent functions, including face capture, perimeter protection and people counting, which greatly improve the accuracy of video analysis. The series camera supports dust-proof function, waterproof function and vandal-proof function, complying with the standards of IP67 and IK10 (Supported by some select models).

Functions

SMD 3.0

With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm.

Perimeter Protection

With deep learning algorithm, Dahua Perimeter Protection technology can recognize human and vehicle accurately. In restricted area (such as pedestrian area and vehicle area), the false alarms of intelligent detection based on target type (such as tripwire, intrusion, fast moving, parking detection, loitering detection and gathering detection) are largely reduced.

People Counting

With deep learning algorithm, Dahua People Counting technology can track and process moving human body targets to realize the accurate statistics of enter No., leave No., and In Area No. Working with management platform, it outputs reports to meet your requirements.

Face Detection

Dahua Face Detection technology can detect the face in the image. With deep learning algorithm, the technology supports detecting, tracking, capturing and recording the face image, and then outputs face snapshot.

- 4 MP 1/2.7" CMOS image sensor, low luminance, and high definition image.
- Outputs max. 4 MP (2560 × 1440)@25/30 fps.
- Built-in IR LED, and the max. illumination distance is 30 m.
- ROI, SMART H.264+/H.265+, AI H.264/H.265, flexible coding, applicable to various bandwidth and storage environments.
- Rotation mode, WDR, 3D NR, HLC, BLC, digital watermarking, applicable to various monitoring scenes.
- Intelligent monitoring: Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); abandoned object, missing object, loitering detection, people gathering, and parking detection.
- Face detection: Track, snapshot, snapshot optimization, optimal face snapshot upload, face enhancement, and face exposure.
- People counting: Queue management, people counting in area, entered/exited people counting, and generating and exporting report (day/month/year).
- Dual-channel intelligence can be enabled at the same time and independent of each other.
- Supports dual-channel images previewed in the first channel, saving license costs.
- Alarm: 2 in, 2 out; audio: 1 in, 1 out; supports max. 256 G Micro SD card; built-in MIC.
- 12 VDC/PoE power supply.
- IP67 and IK10.
- SMD 3.0.



Cyber Security

Dahua network cameras employ a series of security technologies, including security authentication and authorization, access control protocols, trusted protection, encrypted transmission and encrypted storage. These technologies improve the camera's defense against external cyber threats and prevent malicious programs from compromising the device.

Protection (IP67, IK10, Wide Voltage)

IP67: The camera passes a series of strict test on dust and soak. It has dust-proof function, and the enclosure can work normal after soaking in 1 m deep water for 30 minutes.

IK10: The enclosure can stand the punch more than 5 times from a 5 kg hammer falling from a height of 40 cm (Impact energy is 20J).

Wide voltage: The camera allows ±30% (for some power supplies) input voltage tolerance (wide voltage range), and it is widely applied to outdoor environment with instable voltage.

Technical Specification

Camera

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| Image Sensor | 1/2.7" CMOS |
| Max. Resolution | 2560 (H) × 1440 (V) |
| ROM | 128 MB |
| RAM | 1 GB |
| Scanning System | Progressive |
| Electronic Shutter Speed | Auto/Manual 1/3 s–1/100,000 s |
| Min. Illumination | 0.005 Lux@F1.6 (Color,30 IRE) 0.0005 Lux@F1.6 (B/W,30 IRE) 0 lux (Illuminator on) |
| S/N Ratio | > 56 dB |
| Illumination Distance | 30 m (98.43 ft) (IR) |
| Illuminator On/Off Control | Auto |
| Illuminator Number | 16 (IR LED) |
| Pan/Tilt/Rotation Range | Pan: 0°–175° Tilt: 0°–65° Rotation: 0°–360° |

Lens

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|----------------------|---|-----------------------|-----------------------|----------------------|---------------------|
| Lens Type | Fixed-focal | | | | |
| Lens Mount | M12 | | | | |
| Focal Length | 2.8 mm; 3.6 mm | | | | |
| Max. Aperture | F1.6 | | | | |
| Field of View | 2.8 mm: Horizontal: 95°; Vertical: 52°; Diagonal: 114° 3.6 mm: Horizontal: 78°; Vertical: 41°; Diagonal: 94° | | | | |
| Iris Control | Fixed | | | | |
| Close Focus Distance | 2.8 mm: 1.1 m (3.61 ft) 3.6 mm: 1.7 m (5.58 ft) | | | | |
| DORI Distance | Lens | Detect | Observe | Recognize | Identify |
| | 2.8 mm | 63.6 m (208.66 ft) | 25.4 m (83.33 ft) | 12.7 m (41.67 ft) | 6.4 m (21.00 ft) |
| | 3.6 mm | 85.4 m (280.18 ft) | 34.2 m (112.20 ft) | 17.1 m (56.10 ft) | 8.5 m (27.89 ft) |

Smart Event

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|-----|----------------------------------|
| IVS | Abandoned object; missing object |
|-----|----------------------------------|

Professional, intelligent

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|----------------------------|--|
| IVS (Perimeter Protection) | Intrusion, tripwire, fast moving (the three functions support the classification and accurate detection of vehicle and human); loitering detection; people gathering; parking detection |
| SMD 3.0 | With intelligent algorithm, Dahua Smart Motion Detection technology can categorize the targets that trigger motion detection and filter the motion detection alarm triggered by non-concerned targets to realize effective and accurate alarm. |
| Face Detection | Face detection; track; snapshot; snapshot optimization; optimal face snapshot upload; face enhancement; face exposure; face snapshot set as face or one-inch photo; snapshot strategies (real-time snapshot, quality priority and optimization snapshot); face angle filter; optimization time setting |

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|-----------------------------|---|
| People Counting | Tripwire people counting and people counting in area; generating and exporting report (day/month/year); queue management; 4 rules can be set for tripwire, people counting in area and queue management |
| Smart Search | Work together with Smart NVR to perform refine intelligent search, event extraction and merging to event videos |
| Video | |
| Video Compression | H.265; H.264; H.264H; H.264B; MJPEG (Only supported by the sub stream) |
| Smart Codec | Smart H.265+; Smart H.264+ |
| AI Coding | AI H.265; AI H.264 |
| Video Frame Rate | Main stream: 2560 × 1440 @ (1–25/30 fps) sub stream: 704 × 576 @ (1–25 fps)/704 × 480 @ (1–30 fps) third stream: 1920 × 1080 @ (1–25/30 fps) |
| Stream Capability | 3 streams |
| Resolution | 4M (2560 × 1440); 3M (2304 × 1296); 1080p (1920 × 1080); 1.3M(1280×960); 720p (1280 × 720); D1 (704 × 576/704 × 480); CIF (352 × 288/352 × 240) |
| Bit Rate Control | CBR/VBR |
| Video Bit Rate | H.264: 32 kbps–8192 kbps H.265: 32 kbps–8192 kbps |
| Day/Night | Auto(ICR)/Color/B/W |
| BLC | Yes |
| HLC | Yes |
| WDR | 120 dB |
| Scene Self-adaptation (SSA) | Yes |
| White Balance | Auto; natural; street lamp; outdoor; manual; regional custom |
| Gain Control | Auto |
| Noise Reduction | 3D NR |
| Motion Detection | OFF/ON (4 areas, rectangular) |
| Region of Interest (RoI) | Yes (4 areas) |
| Image Stabilization | NA |
| Smart Illumination | Yes |
| Defog | Yes |
| Image Rotation | 0°/90°/180°/270° |
| Mirror | Yes |
| Privacy Masking | 8 areas |
| Audio | |
| Built-in MIC | Yes |
| Audio Compression | PCM; G.711a; G.711Mu; G.726; G.723 |

Alarm

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|--------------------|---|
| Alarm Event | No SD card; SD card full; SD card error; network disconnection; IP conflict; illegal access; motion detection; video tampering; tripwire; intrusion; fast moving; abandoned object; missing object; loitering detection; people gathering; parking detection; scene changing; audio detection; voltage detection; external alarm; face detection; SMD; people counting in area; stay detection; people counting; security exception |
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Network

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|----------------------------|---|
| Network Port | RJ-45 (10/100 Base-T) |
| SDK and API | Yes |
| Cyber Security | Video encryption; Firmware encryption; Configuration encryption; Digest; WSSE; Account lockout; Security logs; IP/MAC filtering; Generation and importing of X.509 certification; syslog; HTTPS; 802.1x; Trusted boot; Trusted execution; Trusted upgrade |
| Network Protocol | IPv4; IPv6; HTTP; TCP; UDP; ARP; RTP; RTSP; RTCP; RTMP; SMTP; FTP; SFTP; DHCP; DNS; DDNS; QoS; UPnP; NTP; Multicast; ICMP; IGMP; NFS; SAMBA; PPPoE; SNMP |
| Interoperability | ONVIF (Profile S/Profile G/Profile T); CGI; P2P; Milestone |
| User/Host | 20 (Total bandwidth: 64 M) |
| Storage | FTP; SFTP; Micro SD card (support max. 256 GB); NAS |
| Browser | IE: IE8 and later Chrome Firefox Safari: 12 and later |
| Management Software | Smart PSS; DSS; DMSS |
| Mobile Client | iOS; Android |

Certification

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| Certifications | CE-LVD: EN 62368-1; CE-EMC: Electromagnetic Compatibility Directive 2014/30/EU; FCC: 47 CFR FCC Part 15, Subpart B; UL/CUL: UL62368-1 & CAN/CSA C22.2 No. 62368-1-14 |
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Port

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| Audio Input | 1 channel (RCA port) |
| Audio Output | 1 channel (RCA port) |
| Alarm Input | 2 channels in: 5mA 3V-5 VDC |
| Alarm Output | 2 channels out: 300mA 12 VDC |

Power

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|--------------------------|---|
| Power Supply | 12 VDC/PoE |
| Power Consumption | Basic: 3.1 W (12 VDC); 4 W (PoE) Max. (H.265 + IR on + intelligence+ WDR): 6.6 W (12 VDC); 8 W (PoE) |

Environment

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|------------------------------|-------------------------------------|
| Operating Temperature | -40 °C to +60 °C (-40 °F to 140 °F) |
| Operating Humidity | ≤ 95% |
| Storage Temperature | -40 °C to +60 °C (-40 °F to 140 °F) |
| Protection | IP67; IK10 |

Structure

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|---------------------------|--------------------------------------|
| Casing | Metal |
| Product Dimensions | 66.2 mm × Φ122.0 mm (2.61" × Φ4.80") |
| Net Weight | 0.52 kg (1.15 lb) |
| Gross Weight | 0.67 kg (1.48 lb) |

Ordering Information

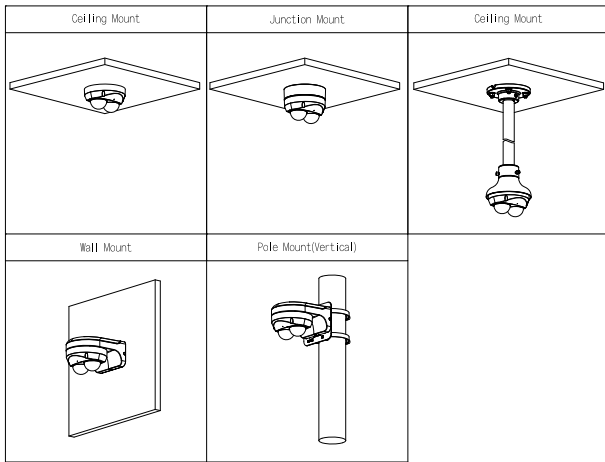
| Type | Model | Description |
|-------------------------------|------------------------|--|
| 4MP Camera | DH-IPC-HDBW5441F-AS-E2 | 2 × 4 MP Dual-Directional No-Splicing WizMind Network Camera |
| Accessories (optional) | PFA106 | Mount Adapter |
| | PFB220C | Celling Mount Bracket |
| | PFB203W | Wall Mount Bracket |
| | PFA152-E | Pole Mount Bracket |
| | PFA137 | Junction Box |
| | PFM321D | 12 VDC 1A Power Adapter |
| | LR1002-1ET/1EC | Single-port Long Reach Ethernet over Coax Extender |
| | PFM900-E | Integrated Mount Tester |
| | PFM114 | TLC SD Card |

Accessories

Optional:

The accessories shown are:

- PFA106 Mount Adapter**: A small white plastic adapter.
- PFB220C Celling Mount Bracket**: A long, thin metal bracket with a screw.
- PFB203W Wall Mount Bracket**: A white plastic bracket with a hole for a screw.
- PFA152-E Pole Mount Bracket**: A white plastic bracket with a hole for a pole.
- PFA137 Junction Box**: A white plastic box with a hole for a cable.
- PFM321D 12 VDC 1A Power Adapter**: A black power adapter with a cable.
- LR1002-1ET/1EC Single-port Long Reach Ethernet over Coax Extender**: Two small white plastic devices.
- PFM900-E Integrated Mount Tester**: A handheld yellow and black device with a screen.
- PFM114 TLC SD Card**: A red and white TLC SD card.



Dimensions (mm[inch])

